



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
TIDEWATER REGIONAL OFFICE

5636 Southern Boulevard, Virginia Beach, Virginia 23462

(757) 518-2000 Fax (757) 518-2009

www.deq.virginia.gov

Doug Domenech
Secretary of Natural Resources

David K. Paylor
Director

Maria R. Nold
Regional Director

DRAFT

Mr. Greg Horvath
President
American Borate Company
5700 Cleveland Street
Virginia Beach, Virginia 23324

Location: Chesapeake
Registration Number: 61671
AFS Id. Number: 51-550-00259

Dear Mr. Horvath:

Attached is an amended state operating permit (SOP) to operate a facility for the handling, storage, and export operations of dry bulk commodities on the premises of the Elizabeth River Terminals located in Chesapeake, in accordance with the provisions of the Virginia Regulations for the Control and Abatement of Air Pollution. This permit supersedes your permit dated September 26, 2013.

This permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and/or civil charges. Please read all permit conditions carefully.

In the course of evaluating the application and arriving at a final decision to approve the project, the Department of Environmental Quality (DEQ) deemed the application complete on November 13, 2013 and solicited written public comments by placing a newspaper advertisement in the Virginian-Pilot newspaper on Wednesday, January 8, 2014. The required comment period, provided by 9 VAC 5-80-1170 D, expired on Friday, February 7, 2014.

This permit approval to operate shall not relieve American Borate Company of the responsibility to comply with all other local, state, and federal permit regulations.

The Board's Regulations as contained in Title 9 of the Virginia Administrative Code 5-170-200 provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this case decision notice was mailed or delivered to you. 9 VAC 5-170-200 provides that you may request direct consideration of the decision by the Board if the Director of the DEQ made the decision. Please consult the relevant regulations for additional requirements for such requests.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal of this decision by filing a Notice of Appeal with:

David K. Paylor, Director
Department of Environmental Quality
P.O. Box 1105
Richmond, VA 23218-1105

If this permit was delivered to you by mail, three (3) days are added to the 30-day period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for information on the required content of the Notice of Appeal and for additional requirements governing appeals from decisions of administrative agencies.

If you have any questions concerning this permit, please contact the DEQ Tidewater Regional Office at (757) 518-2006.

Sincerely,

Troy D. Breathwaite
Regional Air Permits Manager

TDB/JIM/61671_002_14_SOPsigamdmmod_ABC.docx

Attachment: Permit

cc: Manager, Data Analysis (electronic file submission)
Manager/Inspector, Air Compliance
Chief, Air Enforcement Branch (3AP13), U.S. EPA, Region III (electronic file submission)



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STATIONARY SOURCE PERMIT TO OPERATE

This permit supersedes your permit dated September 26, 2013

In compliance with the Federal Clean Air Act and the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution,

American Borate Company
5700 Cleveland Street
Virginia Beach, Virginia 23462
Registration Number: 61671
AFS Id. Number: 51-550-00259

is authorized to operate

a dry bulk commodities handling facility

located at

4100 Buell Street
Chesapeake, Virginia

in accordance with the Conditions of this permit.

Approved on: **DRAFT PERMIT.**

Maria R. Nold

MM-dd-2013
Signature Date

Permit consists of 7 pages.
Permit Conditions 1 to 27.

INTRODUCTION

1. This permit approval is based on the permit applications dated April 16, 2013 and November 4, 2013. Any changes in the permit application specifications or any existing facilities which alter the impact of the facility on air quality may require a permit. Failure to obtain such a permit prior to construction may result in enforcement action. In addition, this facility may be subject to additional applicable requirements not listed in this permit.

Words or terms used in this permit shall have meanings as provided in 9 VAC 5-10-10 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution. The regulatory reference or authority for each condition is listed in parentheses () after each condition.

Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate a prompt response by the permittee to requests by the DEQ or the Board for information to include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the DEQ will either be in writing or by personal contact.

The availability of information submitted to the DEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, § 2.2-3700 through 2.2-3714 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board) of the Code of Virginia, and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.

PROCESS REQUIREMENTS

2. **Equipment List** - Equipment at this dry bulk commodities handling and storage facility consists of the following:

Equipment to be permitted by this permit			
Unit Ref. No.	Equipment/Process Description	Maximum Rated Capacity	Federal Requirements
4	Bulk Colemanite/Ulexite material handling and loading line (screw conveyor system)	20 tons/hr	None
5	Bulk Boric Acid material handling and loading line (screw conveyor system)	20 tons/hr	None

Equipment permitted prior to the date of this permit				
Unit Ref. No.	Equipment/Process Description	Maximum Rated Capacity	Federal Requirements	Original Permit Date
1	Bulk Etibor material handling and loading line	120 tons/hr	None	9/26/2013
2	Bulk Colemanite material handling and loading line (pneumatic system)	50 tons/hr	None	9/26/2013
2	Bulk Ulexite material handling and loading line (pneumatic system)	50 tons/hr	None	9/26/2013
3	Four (4) - Product repackaging lines in Warehouse 3 and Warehouse 8	50 tons/hr (each line)	None	9/26/2013
1	Indoor storage of Etibor/Anhydrous Borax bulk material in Warehouse 3	150,000 tons/yr	None	9/26/2013
	Indoor storage of Borax Decahydrate, Colemanite, Ulexite, Boric Acid, Anhydrous Boric Acid, and Etidot bulk materials	438,000 tons/yr (each)	None	9/26/2013

Specifications included in the permit under this Condition are for informational purposes only and do not form enforceable terms or conditions of the permit.
 (9 VAC 5-80-850)

3. **Emission Controls** - Particulate emissions from the commodity material loading of Etibor to tanker railcars, hopper trucks, and open top trucks equipped with EPA fly ash hole tarps (Equipment Ref. No. 1) shall be controlled by complete enclosure of the drag-chain transfer conveyor from the material load-out building and feed input point located at the hatch or tarp hole opening of the receiving tanker railcar or truck, along with the placement of a fine meshed filter over each remaining open hatch or tarp hole. All tanker railcars and trucks transporting the bulk commodity material off-site shall be provided with adequate access for inspection.
 (9 VAC 5-80-850 and 9 VAC 5-50-260)

4. **Emission Controls** - Particulate emissions from the commodity material loading of Colemanite or Ulexite from Warehouse #3 to tanker railcars, hopper trucks, and open top trucks equipped with EPA fly ash hole tarps using the pneumatic loading system (Equipment Ref. No. 2) shall be controlled by an enclosed system that utilizes a sealed supersack-to-hopper connection, enclosed material conveyance from the hopper to the receiving railcar or truck, an air return line that discharges displaced air from the receiving railcar or truck to a bin filter located inside Warehouse #3, and complete enclosure of the feed input point located at the hatch or tarp hole opening of the receiving tanker railcar or truck, along with the placement of a fine meshed filter over each remaining open hatch or tarp hole. All tanker railcars and trucks transporting either of these bulk commodity materials off-site shall be provided with adequate access for inspection.
(9 VAC 5-80-850 and 9 VAC 5-50-260)
5. **Emission Controls** - Particulate emissions from the commodity material loading of Colemanite or Ulexite from Warehouse #3 to tanker railcars, hopper trucks, and open top trucks equipped with EPA fly ash hole tarps using the electrically-driven screw conveyor loading system (Equipment Ref. No. 4) shall be controlled by enclosed material conveyance from the load-out hopper located inside the warehouse to the receiving railcar or truck and complete enclosure of the feed input point located at the hatch or tarp hole opening of the receiving tanker railcar or truck, along with the placement of a fine meshed filter over each remaining open hatch or tarp hole. All tanker railcars and trucks transporting either of these bulk commodity materials off-site shall be provided with adequate access for inspection.
(9 VAC 5-80-850 and 9 VAC 5-50-260)
6. **Emission Controls** - Particulate emissions from the commodity material loading of Boric Acid from Warehouse #3 to tanker railcars and hopper trucks using the electrically-driven screw conveyor loading system (Equipment Ref. No. 5) shall be controlled by enclosed material conveyance from the load-out hopper located inside the warehouse to the load-out structure adjacent to Warehouse #3. Transfer of the Boric Acid material product from the conveyor to the receiving railcar or truck shall be performed using a connected drop chute. Displaced air that is released from any opened railcar or truck hatch shall be filtered by a fine meshed filter placed over the open hatch. All tanker railcars and trucks transporting the bulk commodity material off-site shall be provided with adequate access for inspection.
(9 VAC 5-80-850 and 9 VAC 5-50-260)
7. **Emission Controls** - Particulate emissions from the re-packaging operations (Equipment Ref. No. 3) of commodity materials listed in Condition 9 this permit shall be controlled by conducting the material re-packaging operation inside either Warehouse #3 and/or #8. Air exhausted or vented from any of equipment involved in the material re-packaging operations shall not be discharged to the outside air at the warehouse to which the operation(s) is performed. The material re-packaging operations shall be provided with adequate access for inspection.
(9 VAC 5-80-850)
8. **Fugitive Dust and Fugitive Emission Controls** - Fugitive dust and fugitive emission controls shall include the following, or equivalent, as approved by DEQ:
 - a. Spillage of any commodity materials shall be cleaned up on a daily basis, or at a more frequent interval, as necessary to prevent and control fugitive dust emissions during material loading operations;
 - b. All load-out devices shall be equipped with drop chute socks at the drop points to minimize fugitive emissions from load-out areas;
 - c. Minimize the transfer height distances between loader buckets and receptor bins and/or surfaces so as to be close as possible before dumping any material;
 - d. Reasonable precautions shall be taken by the permittee to prevent deposition of material on public roads and subsequent dust emissions. Dirt, product, or raw material spilled or tracked onto paved surfaces shall be promptly removed to prevent particulate matter from becoming airborne.
(9 VAC 5-50-90, 9 VAC 5-80-850, and 9 VAC 5-50-260)

OPERATING LIMITATIONS

9. **Bulk Commodity Material Handling** - The following dry bulk commodity materials are authorized for storage, on-site transfer and handling, and export from the facility:

<u>Commodity Material</u>	<u>Chemical Name</u>	<u>Transfer and Handling</u>
Borax Decahydrate	Sodium Tetraborate Decahydrate	Bulk and Re-packaging
Etibor/Anhydrous Borax	Borax Pentahydrate	Bulk and Re-packaging
Colemanite	Calcium Borate	Bulk and Re-packaging
Ulexite	Hydrated Sodium Calcium Borate Hydroxide	Bulk and Re-packaging
Boric Acid	Hydrogen Borate (H_3BO_3)	Bulk and Re-packaging
Anhydrous Boric Acid	Boric Oxide	Bulk and Re-packaging
Etidot	Disodium Octaborate Tetrahydrate	Re-packaging

In the event that a commodity material not listed above is proposed for on-site transfer and handling, storage, and export from the facility, the permittee shall be required to obtain written approval from the DEQ Tidewater Regional Office prior to any handling of the commodity material at the facility. The permittee shall submit all information as necessary, including emission calculations based on hourly and annual throughputs, as applicable, to demonstrate that the proposed commodity material(s) does not exceed the permitted emission limits listed in Conditions 13 - 15 of this permit.

(9 VAC 5-80-850)

10. **Loading Rates** - The repackaging loading rate for any single commodity material shall not exceed 50 tons per hour. Loading rates for each material shall be calculated by dividing the tonnage of loaded material by the total hours of the loading operation.
 (9 VAC 5-80-850)
11. **Loading Rates** - The loading rate for any single commodity material shall not exceed 50 tons per hour when using the pneumatic load-out system. The loading rate for any single commodity material shall not exceed 20 tons per hour when using the screw load-out system. Loading rates for each material shall be calculated by dividing the tonnage of loaded material by the total hours of the loading operation.
 (9 VAC 5-80-850)
12. **Throughput** - The throughput of Etibor material at the facility shall not exceed 150,000 tons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
 (9 VAC 5-80-850)

EMISSION LIMITS

13. **Emission Limits** - Emissions from the loading operations of Etibor material into tanker railcars and transport trucks shall not exceed the following limitations:

Particulate Matter (PM)	0.9 tons/yr
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These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered as credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 3, 7, 12, 16, and 18.

(9 VAC 5-80-850 and 9 VAC 5-50-260)

14. **Emission Limits** - Emissions from the combined loading operations of Colemanite, Ulexite, and Boric Acid materials into tanker railcars and transport trucks shall not exceed the following limitations:

Particulate Matter (PM) 4.5 tons/yr

PM-10 2.2 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered as credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 4 - 7, 10, 11, 16, and 18.
(9 VAC 5-80-850 and 9 VAC 5-50-260)

15. **Facility wide Emission Limits** - Total combined emissions from the material handling, transfer, storage, and load-out operations at the dry bulk commodities facility shall not exceed the following limitations:

Particulate Matter (PM) 5.4 tons/yr

PM-10 2.6 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered as credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 3 - 7, 10 - 12, 16, and 18.
(9 VAC 5-80-850 and 9 VAC 5-50-260)

16. **Visible Emissions** - Visible emissions from any activities conducted outside of Warehouse #3 or #8 involving the bulk commodity materials listed in Condition 9 of this permit shall not exceed five percent (5%) opacity, except during one six-minute period in any one hour in which visible emissions shall not exceed 10 percent (10%) opacity, as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-80-850 and 9 VAC 5-50-80)

17. **Visible Emissions Observations** - The permittee shall, at a minimum, perform weekly observations of the facility site for at least a six-minute period during daylight hours when operations are occurring, to ensure that all emission control elements are in place and are operating effectively. If visible emissions are noted, the permittee shall check on the reason for the visible emissions and take appropriate measures to eliminate such visible emissions, if feasible. If no further actions are feasible, operations may continue in compliance with the permitted opacity limits listed in Condition 12 of this permit. The permittee shall document in a record log the weekly inspections and results, including the occurrence of any such observed visible emissions events. The record log shall include the name of the observer, the date and time of the noted event and a description of any corrective actions taken, including the date and time repairs were completed. These records shall be current for the most recent five (5) years and be maintained on-site for inspection upon request.
(9 VAC 5-80-850 and 9 VAC 5-50-260)

RECORDS

18. **On Site Records** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the DEQ Tidewater Regional Office (Air Compliance). These records shall include, but are not limited to:

- Annual throughput of bulk Etibor material (in tons) handled at the facility, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months;
- The loading rates (in tons/hr) of Decahydrate, Colemanite, Ulexite, Boric Acid, Anhydrous Boric Acid, and Anhydrous Borax materials, calculated by dividing the tonnage of loaded material by the total hours of loading operations for each event; and
- Records of any excess visible emissions as required in Condition 17 and corrective actions taken.

These records shall be available for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-80-850 and 9 VAC 5-80-880)

GENERAL CONDITIONS

19. **Permit Invalidation** - This permit to construct and operate shall become invalid, unless an extension is granted by the DEQ, if:
- A program of continuous construction , reconstruction, or modification is not commenced within the latest of the following:
 - Eighteen (18) months from the date of this permit;
 - Nine (9) months from the date that the last permit or other authorization was issued from any other governmental entity;
 - Nine (9) months from the date of the last resolution of any litigation concerning any such permits or authorization; or
 - A program of construction, reconstruction, or modification is discontinued for a period of 18 months or more, or is not completed within a reasonable time, except for a DEQ approved period between phases of a phased construction project.
(9 VAC 5-80-850)
20. **Right of Entry** - The permittee shall allow authorized local, state, and federal representatives, upon the presentation of credentials:
- To enter upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;
 - To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations;
 - To inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and
 - To sample or test at reasonable times.
- For purposes of this condition, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency.
(9 VAC 5-170-130 and 9 VAC 5-80-850)
21. **Record of Malfunctions** - The permittee shall maintain records of the occurrence and duration of any bypass, malfunction, shutdown or failure of the facility or its associated air pollution control equipment that results in excess emissions for more than one (1) hour. Records shall include the date, time, duration, description (emission unit, pollutant affected, cause), corrective action, preventive measures taken and name of person generating the record.
(9 VAC 5-20-180 J and 9 VAC 5-80-850)
22. **Notification for Facility or Control Equipment Malfunction** - The permittee shall furnish notification to the DEQ Tidewater Regional Office (Air Compliance) of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one (1) hour, by facsimile transmission, telephone, or electronic mail (e-mail). Such notification shall be made as soon as practicable but no later than four (4) daytime business hours after the malfunction is discovered. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within two (2) weeks of discovery of the malfunction. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify the DEQ Tidewater Regional Office (Air Compliance) in writing.
(9 VAC 5-20-180 C and 9 VAC 5-80-850)
23. **Violation of Ambient Air Quality Standard** - The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.
(9 VAC 5-20-180 I and 9 VAC 5-80-850)

24. **Maintenance/Operating Procedures** - At all times, including periods of start-up, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.
(9 VAC 5-50-20 E and 9 VAC 5-80-850)
25. **Permit Suspension/Revocation** - This permit may be revoked if the permittee:
- a. Knowingly makes material misstatements in the permit application or any amendments to it;
 - b. Fails to comply with the terms or conditions of this permit;
 - c. Fails to comply with any emission standards applicable to a permitted emissions unit;
 - d. Causes emissions from this facility which result in violations of, or interferes with the attainment and maintenance of, any ambient air quality standard;
 - e. Fails to operate this facility in conformance with any applicable control strategy, including any emission standards or emission limitations, in the State Implementation Plan in effect at the time that an application for this permit is submitted; or
 - f. Fails to comply with the applicable provisions of Articles 6, 8, and 9 of 9 VAC 5 Chapter 80.
(9 VAC 5-80-1010)
26. **Change of Ownership** - In the case of a transfer of ownership of a stationary source, the new owner shall abide by any current permit issued to the previous owner. The new owner shall notify the DEQ Tidewater Regional Office (Air Permits Manager) of the change of ownership within 30 calendar days of the transfer.
(9 VAC 5-80-940)
27. **Permit Copy** - The permittee shall keep a copy of this permit on the premises of the facility to which it applies.
(9 VAC 5-80-860 D)